



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/735,568   | 12/12/2000  | Daniela Cheaib       | 1000-0221           | 5739             |
| 27902  | 7590        | 04/06/2005           | EXAMINER            |                  |
| ERICSSON RESEARCH CANADA<br>8400 DECARIE BLVD.<br>MONTREAL, QC H4P 2N2<br>CANADA |             |                      | GRAHAM, CLEMENT B   |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3628                |                  |

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/735,568

Applicant(s)

CHEAIB ET AL.

Examiner

Clement B Graham

Art Unit

3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,7,10,11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,7,10,11 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 4-6, 12-13 and 15-18 has been cancelled and Claims 1-3, 7-11 and 14 remained pending.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, Claim 7, depend on claim 4, however, claim 4 do not exist. For examination purposes only, the examiner considers claim 7, to depend on claim 1. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker U.S Patent 4, 845, 636) in view of Beatson et al (Hereinafter Beatson U.S Patent 5, 892, 824) in view of Perona et al (Hereinafter Perona U.S Patent 6, 055, 165.

As per claims 1, 3, 7, and 10, Walker discloses a method of authorizing an electronic commerce transaction between a purchaser using a credit card, an on-line merchant, and a credit card company, said method comprising the steps of: receiving by the merchant, a purchase request from the purchaser obtaining by the merchant, the purchaser's credit card information establishing a multi-party Session initiation Protocol (SIP) session ("i. e, multi party session" see column 6 lines 6-13)

Art Unit: 3628

between the purchaser. (see column 1 lines 43-67 and column 2 lines 22-33) and taking an image of the purchaser with a Web camera ("i. e, video equipment") and on-line merchant and the credit card company (1 lines 63-68) and verifying the credit card information by the credit card company, and approving the transaction. (see column 6 lines 6-13) and validating the purchaser's image by the credit card company and validating the purchaser's image (see column 2 lines 58-66 and column 1 lines 58-68 and column 2 lines 28-33).

Walker fail to explicitly teach producing a bill by the merchant in the multi-party data session, said bill including the purchaser's credit card information, upon positively verifying the credit card information and validating the purchaser's signature by the credit card company and utilizing a whiteboard application to obtain the purchaser's signature.

However Beatson discloses FIG. 1 shows, by way of example, an overall transaction system including real-time signature processing capabilities. In this example, electronic transaction devices such as personal computers and electronic cash registers are installed at the point of transaction (e.g., a retail store that sells goods and/or services to members of the public). These electronic transaction devices have conventional designs and operate electronically under control of conventional hardware and/or software to perform common electronic transaction functions. As one specific example, electronic transaction devices may automatically add the prices of multiple items to provide a subtotal, automatically calculate and add in sales tax, automatically apply discounts, automatically display totals and other information on an integral display, automatically print paper receipts or other record members for signature by customers, automatically debit a bank account at a financial institution via a financial transaction network, automatically accept credit card and/or checking account numbers, automatically verify the authenticity of the credit card and/or checking account number by contacting and receiving real-time authorization from a credit card company or the like, automatically download transaction data to a local or remote retail data processing server, etc. (see column 8 lines 2-40 and column 9 lines 1-25) and validating the

Art Unit: 3628

purchaser's signature by the credit card company. (see column 8 lines 22-40 and column 9 lines 1-25).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Walker to include producing a bill by the merchant in the multi-party data session, said bill including the purchaser's credit card information, upon positively verifying the credit card information and validating the purchaser's signature by the credit card company taught by Beatson in order to use electronic signature devices for capturing and or verifying hand written signatures and handling hand written signatures in real time.

Walker and Beatson fail to explicitly teach and utilizing a whiteboard application to obtain the purchaser's signature.

However Perona the writing implement is preferably pen. The user's hand is not shown for clarity and more generally, any device which obtains a video image of the movement of the writing implement relative to the writing surface could be used to acquire the image used according to the present invention. The image which is referred to herein can be the image of a pen or other writing instrument, including the hand and/or fingers while it is tracing letters, graphic characters, or any other image formed by user's hand movement. Importantly, this system preferably monitors relative movement of the writing implement, instead of imaging previously-written characters and the output of the camera is pre-processed by pre-processor to adjust contrast and other parameters, remove artifacts and filter the image. The pre-processed image is input to a processor embodied in this invention by tracker, which processes the information received from the pen. According to the present invention, this information is preferably processed for an application, e.g., handwriting recognition on a tablet, whiteboard recognition, signature verification, or any other form of converting the tracked output into an image file, by image processor. The tracked output is either a symbolic or a graphical representation. A pen up/pen down classifier provides an indication of whether the pen is touching the writing surface or not, as described herein. A system recognition unit which can also be part of the processor, uses the outputs to recognize the movement as described herein. Output unit, for example, a graphical screen, can display this path.

Art Unit: 3628

Output unit, for example, a text display, displays results of the symbolic recognition information.(see column 3 lines 30-66).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Walker and Beatson to include utilizing a whiteboard application to obtain the purchaser's signature taught by Perona in order to obtain recognition information about the handwriting signal.

As per claim 2, Walker fail to explicitly teach discloses wherein the step of validating the image by the credit card company includes the steps of: storing in an image database a processed image of a valid cardholder associated with the credit card, and utilizing an image recognition program to compare the image of the purchaser with the stored image of the valid cardholder.

However Walker discloses a programmable device such as a microcomputer (i. e, "with an inherent storage means") may be used in place of the decoder and may be arranged to receive signals from the operations center and, in turn, control the equipment in the booth or may be programmed to control the equipment according to predetermined instructions (see column 1 lines 43-68) and after positively identifying the customer, provision is made for credit approval. A credit card reader is provided to read the data encoded on the magnetic strip of the card. Additionally, a keypad may be provided for the use of bank cards requiring the input of a personal identification number to activate the card (see column 9 lines 57-62) and a second video device to transmit images from said transaction booth to said operations center for purposes of visual verification of identification documents (see column 10 lines 53-56).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Walker when applied would have able to storing in an image database a processed image of a valid cardholder associated with the credit card, and utilizing an image recognition program to compare the image of the purchaser with the stored image of the valid cardholder in order to validate a user identify and a user during a transaction and storing the transaction information.

6. Claims 11 and 14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker U.S Patent 4, 845, 636) in view in view of Perona et al (Hereinafter Perona U.S Patent 6, 055, 165.

As per claim 11, 14, Walker discloses a system for authorizing an electronic commerce transaction between a purchaser using a credit card, an on-line merchant, and a credit card company, said system comprising:  
a server associated with the merchant for receiving a purchase request from the purchaser, and for obtaining the purchaser's credit card information (see column 1 lines 43-67 and column 2 lines 22-33) a packet data network that connects the purchaser the merchant (see column 1 lines 43-67 and column 2 lines 22-33) and the credit card company in a multiparty Session protocol (SIP) session ("i. e, multi party session" see column 6 lines 6-13) a Web camera for taking an image of the purchaser (see column 1 lines 43-68) in response to a purchaser sending the purchase request to the merchant (see column 5 lines 59-68 and column 6 lines 6-13) a first database. ("i. e, "computer with inherent memory for storing " see column 5 lines 45-65) that stores valid credit card information (see column 5 lines 45-65) said valid credit card information being compared to the purchaser's credit card information to verify the purchaser's information, and whereby the credit card company approves the transaction upon positively verifying the credit card information.(see column 5 lines 45-65 and column 6 lines 6-13) and upon validating the purchaser's image. (see column 9 lines 46-68). Walker fail to explicitly teach said images of valid cardholders being compared to the image of the purchaser to validate the purchaser's image and third database that stores processed images of valid cardholders.

However Walker discloses the booth provides a setting in which the user can sit or stand during the course of the transaction and be positioned with respect to the video equipment so as to have his image transmitted to the operations center for viewing by an operator. Additionally, the booth may have a video display unit for displaying images to the user at the discretion of the operator at the operations center.(see column 1 lines 63-68).

Walker fail to explicitly teach an image recognition program that validates the purchaser's signature by comparing the image of the purchaser's signature to an image of a valid cardholder's signature from the second third database that stores processed images of valid cardholders, signatures, said images of valid cardholders signatures being compared to the image of the purchaser's signatures to validate the purchaser's signature and upon validating the purchaser's signature.

However Perona discloses the basic embodiment of the invention uses a camera, preferably a miniature camera, aimed at the writing surface, e.g., sheet of paper, on which a user is writing with a writing implement. The writing implement is preferably pen. The user's hand is not shown for clarity and more generally, any device which obtains a video image of the movement of the writing implement relative to the writing surface could be used to acquire the image used according to the present invention. The image which is referred to herein can be the image of a pen or other writing instrument, including the hand and/or fingers while it is tracing letters, graphic characters, or any other image formed by user's hand movement. Importantly, this system preferably monitors relative movement of the writing implement, instead of imaging previously-written characters and the output of the camera is pre-processed by pre-processor to adjust contrast and other parameters, remove artifacts and filter the image. The pre-processed image is input to a processor embodied in this invention by tracker, which processes the information received from the pen. According to the present invention, this information is preferably processed for an application, e.g., handwriting recognition on a tablet, whiteboard recognition, signature verification, or any other form of converting the tracked output into an image file, by image processor. The tracked output is either a symbolic or a graphical representation. A pen up/pen down classifier provides an indication of whether the pen is touching the writing surface or not, as described herein. A system recognition unit which can also be part of the processor, uses the outputs to recognize the movement as described herein. Output unit, for example, a graphical screen, can display this path. Output unit, for example, a text display, displays results of the symbolic recognition information (see column 3 lines 30-60) and apart from recognizing handwritten text, the movement of the writing implement



can also be used to perform other tasks. One is signature verification. Signature verification compares a person's signature against a stored signature in a database. The signature is "verified" if it matches the signature in the database according to predetermined criteria. These criteria can include, for example, the look of the signature, the speed and style with which the pen is moved, and the like.(see column 1 lines 35-44 and column 4 lines 43-54).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of, Walker to include an image recognition program that validates the purchaser's signature by comparing the image of the purchaser's signature to an image of a valid cardholder's signature from the second third database that stores processed images of valid cardholders, signatures, said images of valid cardholders signatures being compared to the image of the purchaser's signatures to validate the purchaser's signature and upon validating the purchaser's signature taught by Perona in order to obtain recognition information about the handwriting signal.

### **Conclusion**

#### **Response to Arguments**

7. Applicant's arguments files on 11/29/04 have been fully considered but they are moot in view of new grounds of rejection.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 703-305-1874. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam Sough can be reached on 703-305-0505. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3597 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Application/Control Number: 09/735,568  
Art Unit: 3628

Page 9

CG

March 29, 2005

*Handwritten signature*  
PATENT EXAMINER  
PRIORITY EXAMINER  
*Ad 3628*